

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

Form Approved
OMB NO. 0704-0188

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A. CONTRACT LINE ITEM NO.	B. EXHIBIT T	C. CATEGORY: TDP TM X OTHER
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D. SYSTEM/ITEM SIMNET RF Simulator Acquisition	E. CONTRACT/PR NO.	F. CONTRACTOR
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1. DATA ITEM NO. TOOI	2. TITLE OF DATA ITEM Technical Contract Requirements	3. SUBTITLE Group B
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4. AUTHORITY Data Acquisition Doc No. TM 86-01T	5. CONTRACT REFERENCE TRD PARA. 3.8.2	6. REQUIRING OFFICE WR-ALC/LNCA
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7. DD 250 REQ DD TM 86-01H(T)	9. DIST STATEMENT REQUIRED (A) TBD	10. FREQ SEE BLK 16	12. Date of first submission SEE BLK 16	14. DISTRIBUTION		
8. APP CODE A		11. As Of Date SEE BLK 16	13. Date of subsequent sub SEE BLK 16	a. ADDRESSEE	b. COPIES	
					Draft	Final
						Digital Repro

16. REMARKS

Block 4: General and Specific Technical Manual Requirements, see attached TM 86-01.

Block 7: The final Invoice or DD form 250 are applicable for inspection and acceptance in accordance with section 2, para.3 of TM 86-01 and shall be submitted to account for all previous submittals.

Block 8: Approval in accordance with TM-86-01, see section 1.

Block 9: Distribution statement to TOs will be required and provided by WR-ALC/LNCA prior to delivery of data.

Block 10 through 16: See sect 2 to the attached TM-86-01

LN 12-9-01

CHERYLN THOMIE
Data Management Officer (DMO)
WR-ALC/LNCA/6-0784

WR-ALC/LNCA	0	2	1
265 Perry St.			
Robins AFB, GA 31093-1607			
15. TOTAL	0	2	1

G. PREPARED BY: SHERI JONES	H. DATE	I. APPROVED BY: John Shawhan, Division Chief LNC	J. DATE
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17 Dec 99

John Shawhan, Division Chief LNC

OCT 10 2006
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TM-86-01H 1 June 1999

1

Air Force Technical Manual Contract Requirements (TMCR) for

AN/ALR-69 (PLAID)

(Program/Modification/Military System)

ATTACHMENT ____ TO CDRL SEQUENCE NUMBER X EXHIBIT _

REQUEST FOR PROPOSAL/CONTRACT: FD2060-00-52073

Date: 20 SEP 2000

Technical Manual/Technical Order requirements contained herein have been cleared for use by OMB No. 0704-0188, 21 July 1986.

NOTE: Items in italics must be tailored by the TO Manager before placing the TMCR in an exhibit to the RFP, system performance specification or in the proposal technical library. The TMCR must be referenced in RFP section J. If some or all of the TO program requirements are included in RFP Section L (Instructions to Offeror), remove them from the TMCR. Delete this note prior to placing the TMCR in the RFP.

SECTION 1. TECHNICAL ORDER (TO) PROGRAM REQUIREMENTS

1. TMCR Tailoring. Offerors MUST tailor this TMCR document, including the associated tables, matrices and Specification/Standard Interface Requirements (SIRs). The tailored TMCR shall be attached to the CDRL for TO delivery, and shall be included in the proposal as a separate exhibit, referenced in the proposal SOW. Proposals shall be compatible with the Air Force infrastructure and support the (AN/ALR69(PLAID)) Program's CALS implementation strategy as documented in the Government Concept of Operations (GCO, *Defense Acquisition Deskbook (DAD)*, Section 3.7), located (*enter RFP location of GCO*). Air Force TO Acquisition procedures, including procedures for tailoring this document, are found in TO 00-5-3, located on the World Wide Web (WWW) at <http://www.pdsm.wpafb.af.mil/toprac/to-syste.htm>. Any terms or procedures found in this document may be researched there.

2. TO Program Scope. The offeror shall tailor Section 2 to propose the TO types (Table 1) and source data, TO updates and commercial manuals (Table 2) required to support the (AN/ALR-69) program's objectives. Page-oriented Military Specification (MILSPEC) TOs must be formatted according to MIL-STD-38784 and applicable performance (MIL-PRF) specifications, with text, graphics and delivery according to MIL-STD-1840. The offeror may propose use of Non-Government Specifications or Standards (NGS) for development of TOs, but must justify this choice based on life-cycle cost savings to the government and compatibility with existing systems identified in the GCO and the System Support Plan.. **NOTE:** If Interactive Electronic Technical Manuals (IETMs) are proposed (MIL-PRF-87268 and MIL-PRF-87269), contact the Procuring Contracting Officer (PCO) and TO Manager to obtain guidance from the Air Force Preparing Activity (PA), MSG/ILMP, 4375 Chidlaw Rd Suite 6, WPAFB OH 45433-5006.

3. Commercial Manuals. Offerors shall propose the use of existing commercial manuals to the maximum extent possible without impairing program support objectives. The proposal will describe the method used to recommend and submit specific manuals to the government for review and approval. **NOTES:** a) Contractor Furnished Aeronautical Equipment/Contractor Furnished Equipment (CFAE/ CFE) Notices, Data Item Description (DID) DI-TMSS-80067, may be used to provide recommendation data. b) The government will use MIL-HDBK-1221 as a guide for review and acceptance of all recommended commercial manuals, and MIL-PRF-7700 as an additional guide for commercial Flight Manual contents.

4. Technical Manual Specifications and Standards (TMSS) Tailoring. TMSS are tailored by deleting requirements not needed for program TOs, and by selecting between options offered. The tai-

loring is recorded in SIRs and added to Section 3 of this document. AF options in some Joint-Service TMSS have been documented in preliminary SIRs included in Section 3. Offerors shall complete tailoring of the Joint-Service TMSS SIRs and provide recommended SIRs for other TMSS or NGS as applicable. Questions and conflicts with TMSS requirements may be resolved by written request and justified suggestions for resolution submitted through the PCO to (*enter name, office symbol, address and phone number of TO Manager*). Approved recommendations, corrections and clarifications will be maintained with contract documentation. **NOTE:** Tailoring must not change or delete mandatory requirements which are part of the DTD structure.

5. Subsequent TO/Data Requirements. Offerors shall propose a process for notifying the government when additional TO or source data requirements are identified subsequent to contract award. This process shall require government review and approval of recommended additional requirements prior to contractual approval. **NOTE:** The recommended notification process is to use CFAE/CFE Notices (DI-TMSS-80067).

6. TO Development. The offeror shall propose TO development practices and procedures which ensure TOs and data are compatible with the AF Digital Data Strategy (http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm) and the JCALS JTMS. The preferred method is through use of the TMSS specified in Section 2 to produce TO files tagged using Standard Generalized Markup Language (SGML) according to the Document Type Definitions (DTDs) appended to MIL-STD-38784 and each specification. The offeror must submit any DTDs developed to support use of NGS or canceled TMSS through the PCO and TO Manager to MSG/ILMP for validation of JCALS compatibility. SGML-tagged TO files shall include required illustrations in one of the three approved graphics exchange specifications; MIL-PRF-28000, 28002, or 28003.

7. TO Numbering. Offerors shall propose a method for notifying the government of which manuals require TO numbers. TO numbers are not required for manuals to be used exclusively by contractor personnel. (**NOTE:** DI-TMSS-80067 may be used to provide the notification.) AF procedures for numbering TOs are described in TO 00-5-3 and AFMCMAN 21-1 (<http://www.pdsm.wpafb.af.mil/toprac/to-syste.htm>).

8. Data Rights. Government rights in data are specified in the Defense Federal Acquisition Regulation Supplement (DFARS), paragraphs 227-7102 through 227-7104, located (*enter the RFP location containing the applicable DFARS paragraphs*). Offerors shall propose Unlimited Rights for all source data and TOs prepared specifically for the contract. If some TOs or source data are copyrighted or contain proprietary data or procedures, offerors may propose Limited Rights or Government Purpose License Rights (GPLR) only. Proposed commercial manuals should be provided with at least GPLR or Limited Rights. Copyrights shall be according to DFARS paragraphs 227-7103, 7105 or 7106.

9. Classification, Distribution, Destruction, Disclosure, and Export Control Notices. Offerors shall propose methods for determining, marking and controlling classified and restricted distribution data and TOs. Processes must conform to government requirements specified in DOD 5200.1-R, DODD 5230.24, AFIs 31-401 and 61-204, and MIL-STD-38784. **NOTE:** Distribution limitations are normally determined on a case-by-case basis as TOs are developed, dependent upon TO content.

10. TO Quality. Offerors shall propose a quality assurance program which ensures TOs prepared are: a) 100% technically accurate; b) written to a scope and depth of coverage sufficient to support the operations and maintenance concepts, and to the Reading Grade Level (RGL) specified in MIL-

STD-38784; c) compatible with the JCALS JTMS; and d) properly classified and marked with export control and distribution limitation statements. Recommended QA methods include actual performance of procedures and use of desk-top analysis for non-procedural data. Simulation (walk-through/talk-through) should be reserved for those procedures which would activate explosive devices or present a hazard to personnel or equipment. Offerors' proposals should describe how the government will be allowed to interact with the contractor's TO development team. **NOTE:** Quality requirements for the Joint Nuclear Weapons Publications System (JNWPS) and for Non-nuclear Explosive Ordnance Disposal (EOD) Data are contained in TO 11N-1-1 and DOD Directive 5160.62, respectively. The government performance-tests all JNWPS and EOD TOs.

10.1. Conferences and Technical Reviews. Offerors shall propose sufficient conferences and reviews to allow insight into TO development processes and ensure contract compliance. Offerors normally host an initial Guidance Conference or Technical Interchange Meeting (TIM) within 60 days of contract award to ensure mutual understanding of TO contract requirements, schedules, points of contact, etc. Periodic In-Process Reviews (IPRs) and Prepublication Reviews (PPR) ensure TOs are being developed according to contract requirements and that open discrepancies are cleared prior to publication. **NOTE:** PPRs are required for critical safety and nuclear surety procedures TOs, and may be required for other complex procedures TOs.

10.2. TO Certification. Offerors shall propose their method for documenting certification that TO procedures are accurate, adequate, current, and usable for their intended purposes.

10.3 Verification Support. Offerors shall propose the methods, equipment and personnel required to support government TO Verification. This support should consist of at least (*insert minimum program requirements, such as writers and/or engineers to resolve problems during verification, program-peculiar equipment and supplies, maintenance of TO configuration, incorporation of government comments, and participation on TO Review Boards (TORBs) and Flight TORBs*).

11. TO and Source Data Maintenance. Offerors shall propose methods for maintaining accuracy, currency and configuration of TOs and source data throughout the contract period of performance. Maintenance includes preparation of TO and source data updates to incorporate corrections, equipment configuration changes, and maintenance and operational concept changes.

12. TO Delivery. Offerors shall propose practices and procedures for access to or delivery of digital TO files, including those for Preliminary TOs (PTOs), source data, reproduction masters, and program support data. Practices and procedures shall be compatible with the program's Contractor Integrated Technical Information Service (CITIS) agreement (if on contract) and Government Concept of Operations (GCO – found in (*specify RFP location of GCO*)). TO file delivery formats shall be according to applicable CDRLs and the tailored TM Delivery Requirements Matrices included in Section 2 of this document. Paper TO delivery is not acceptable for final delivery of TOs. **EXCEPTION:** When cost analysis proves the paper delivery is more cost effective over the life-cycle of the program or project, and for some Commercial Manuals not available digitally.

12.1. SGML-Tagged Files. The government will parse SGML TO document files prior to acceptance. **NOTE:** The Internet address for the public domain "SGMLS Parser" software is "ftp://ifi.uio.no/pub/SGML."

12.2. Indexed Adobe™ Portable Document Format (IPDF) Files. Indexing specifications for PDF TO files are contained in the AF Digital Data Strategy (http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm).

12.3. Additional digital delivery media requirements are specified in MIL-STD-1840 (SIR, Section 3).

13. Schedules. Offerors shall include TO program events and schedules in their proposed Integrated Master Plan (IMP) and Integrated Master Schedule (IMS), and update the IMS throughout the period of performance. **NOTE:** AF policy requires delivery of verified TOs prior to or concurrently with delivery of operational equipment to the field (AFPD 21-3). This policy will determine TO development and delivery schedules throughout the acquisition phase of a program.

If applicable for the specific program, add the following:

14. Time Compliance Technical Orders (TCTOs). Offerors shall propose practices and procedures to develop AF TCTOs and related TO updates when tasked as part of the approval process for Engineering Change Proposals (ECPs) to configured items. Costs for TCTO package development must be included in ECP Costs – not included as direct proposal costs. **NOTE:** ECPs are reviewed and approved by the Government's Configuration Control Board (CCB). When the CCB decides that a TCTO is the appropriate method of implementation, the contractor may be requested to develop the TCTO package for Air Force coordination and approval. See TO 00-5-15 (<http://www.pdsm.wpafb.af.mil/toprac/to-syste.htm>) for a detailed description of the TCTO system.

15. TO Reproduction Management. Offerors shall propose practices and procedures for managing the program's reproduction requirements. **NOTE:** Reproduction management for printing includes assembly of a print package (reproduction media, a reproduction assembly sheet, and TO Initial Distribution (ID) labels) and submission of the package for government printing. (ID labels are provided by the TO Manager) In some cases, the contractor may perform the printing. Reproduction management for digital media consists of reproduction of the digital file on magnetic/optical media and distribution according to ID labels. Reproduction Management may also include configuration control and storage of reproduction masters.

SECTION 2. TM TYPE AND DELIVERY REQUIREMENTS

NOTES:

- Mark the TM Type Selection Tables indicating the applicable TO types and related specifications. For additional interface requirements see the program-specific Government Concept of Operations (GCO) and DOD 5000.2-R.
- Manuals delivered using this table and DI-TMSS-80067, CFAE/CFE Notices, must be reviewed and approved by the Air Force prior to delivery.
- IPBs are developed IAW MIL-PRF-38807, except that MIL-PRF-87929 will also be used for IPBs combined with work packages.
- All checklists, except aircrew and nuclear weapons checklists, are developed IAW MIL-PRF-5096.
- MIL-PRF-83495 requires DOD-STD-863 requirements to be levied on engineering data for preparation of end item wiring data and schematic diagrams.
- Delivery requirements are indicated in the TM Delivery Requirements matrices.
- Digital data media format requirements are specified in MIL-STD-1840. Use MIL-STD-1840 as a guide when completing Part B - TM Delivery Requirements.
- For further information on Air Force Digital Data Strategy, see WWW address http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm.

1. Inspection. Unless otherwise specified in the contract, inspection and acceptance of TO reproducible media will be performed by the Government activity having cognizance over the contractor facility involved, following approval of formal copy by TOMA letter (See Para. 2 below). If TOMA letter indicates technical compliance and style and format acceptance, the inspection need only ensure that the deliverables are accounted for and in ready-to-ship condition. **The DD Form 250 shall display the TO number and issue date of each publication.**

2. Prepublication Review (PPR). The contractor shall host and co-chair, with the TOMA, a prepublication review. This review affords examination of facsimile copy of formal TOs to assure incorporation of changes resulting from verification, and a final check on compliance with contract requirements upon completion of formal copy, but prior to preparation of reproduction media. The PPR may be conducted at a designated site, or less formally, at the discretion of the TOMA, in accordance with schedule and quality considerations. **Successful PPR completion will enable timely approval, inspection, acceptance and delivery** (See Para. 3 below).

3. Reproduction Media. Each item, with DD Form 250 (See Para 1 above) and **three reproduction assembly sheets**, shall be delivered in accordance with the TO schedule, program schedule, or as directed by the TOMA, generally sixty (60) days prior to delivery of the first production article supporting initial operating capability. The appropriate contract number shall be displayed on each TO title page. Master reproduction copies of these products may be retained as described in paragraph 4 of this section.

4. Retention of master reproducible media. The contractor is authorized to retain master media (digital) resulting from these requirements, to facilitate preparation of future changes or revisions. This will be accomplished subject to the following conditions: (1) that no cost to the Government shall be incurred by such storage; (2) storage provisions shall provide ample protection, and (3) the contractor shall deliver the master media to the Air Force at any time upon request. Acceptance of the reproduction media by a government inspector or the TOMA shall be considered "delivery" as required by this contract, although master media may not be physically delivered until later because of this authorized retention and storage provision.

TECHNICAL ORDER NUMBER REQUEST

- a. Prime Contractor Name, Address, and CAGE Code
- b. Design Activity's name, address, and CAGE Code
- c. Contract Number and Order Number
- d. Equipment Nomenclature and Part Number
- e. National Stock Number (NSN), or National Stock Class (NSC) if the NSN is unknown. Include Materiel Management Aggregation Code (MMAC) if applicable.
- f. Support Equipment Recommendation Data (SERD) Number if applicable
- g. Model of Weapon System equipment is installed on or supports
- h. Functional System/Subsystem which the equipment will support (Fire Control, Landing Gear, Radar, EW/ECM, etc.)
- i. Motivation of equipment; (Electric, Hydraulic, Mechanical, etc.; include Current/Phase(s)/Voltage Range if Electric)
- j. Whether or not Software Documentation is included.
- k. Whether the equipment is Air or Ground; and ATE, TE, or SE.
- l. Purpose of Request (Number assignment, cancellation or change to previous request, or "record" only)
- m. For each manual recommended:
 - (1) Type TO (Operation, OMI, IPB, Inspection, etc.)
 - (2) Security Classification of Title and Contents
 - (3) New/Rev/Change (TO number if revision or change, or "TBA")
 - (4) TO Detail Specification Number, or "SS&F" (Same Style and Format)
 - (5) Estimated cost, number of pages, and delivery time

1. PTOs for IPRs. IPR PTOs shall be technically edited, word-processed, and approved by contractor engineering. The following table may be used by the contractor to determine readiness for IPRs. The items and percentages are suggestions only and are not all-inclusive.

TM-86-01/T

<u>Section of TO</u>	<u>Review Level:</u>	<u>35%</u>	<u>75%</u>
TO Title Page		100%	
Front Matter			75%
Introduction		100%	
General Information		50%	90%
Installation Instructions		25%	70%
Operation Instructions		25%	70%
Theory of Operation		50%	100%
Maintenance Instructions		25%	75%
Checkout and Troubleshooting		75%	
Circuit Diagrams/Illustrations		25%	75%
Parts Lists		35%	80%

TECHNICAL MANUAL CONTRACT REQUIREMENTS

SECTION 2

SPECIFIC REQUIREMENTS

1. Specific Requirements.

1.1 Technical Manuals. Technical manuals required in this section provide complete instructions in accordance with the applicable SOW/SOO and requirements in this section. This section describes the processes of preparation, delivery, change and correction of TMs.

1.2 Readability. The contractor shall prepare new technical manuals to a Reading Grade Level (RGL) of (9) in accordance with MIL-STD-38784. Excluded from RGL requirements are:

- a. Aircraft Flight Manuals (-1 Series)
- b. Job Guide Manuals (-2JG Series)
- c. Illustrated Parts Breakdown (IPB) Manuals (-4 Series)
- d. Basic Weight Checklist and Loading Data Manuals (-5 Series)
- e. Cargo Aircraft Loading Manuals (-9 Series)
- f. Nuclear/Non-Nuclear Munitions Delivery Manuals (-25/-34 Series)
- g. Acceptance and/or Functional Check Flight Manuals (-6CF-1 Series)
- h. Work Unit Code (WUC) Manuals (-06 Series)
- i. List of Applicable Publications (LOAPs) (-01 Series)
- j. Aircraft Inspection Manuals and Associated Workcards/Worksheets/Lube Charts, etc. (-6 and 6WC/-6WS/-6LC Series)
- k. Wiring/Schematic Diagram Manuals
- l. Precious Metals (-113 Series)
- m. Engine Work Package TMs

NOTE: Commercial Manuals shall be reviewed IAW program-specific requirements and/or best commercial practices. They will not necessarily be rejected for minor noncompliance, including RGL. Discretion rests with the acquisition team.

PART A – TM TYPE SELECTION TABLES

TABLE 1

TMSS REQUIREMENTS FOR THE (____) Program
(System/Component)

Title or Type of Manuals	Specification	Required
1. Inspection TOs	MIL-PRF-5096	
a. Inspection and Maintenance Requirements (-6) Manual		<input type="checkbox"/>
b. Acceptance and Functional Check Flight (FCF) Procedures (-6CF) Manual		<input type="checkbox"/>
c. Acceptance and Functional Check Flight (-6CL) Checklist		<input type="checkbox"/>
d. Workcards		<input type="checkbox"/>
e. Inspection Requirements Cards		<input type="checkbox"/>
f. Flow/Sequence Charts		<input type="checkbox"/>
g. Checklists		
(1) Maintenance/Operations (Non-Aircrew)		<input type="checkbox"/>
(2) Operations (Aircrew)		<input type="checkbox"/>
2. Cargo Aircraft Loading and Offloading TOs	MIL-PRF-5288	
a. Manual		<input type="checkbox"/>
b. Checklists		<input type="checkbox"/>
3. Weight and Balance (Aircraft)	MIL-PRF-5920	
a. Loading Data Manual		<input type="checkbox"/>
b. Sample Basic Weight Checklists		<input type="checkbox"/>
4. Flight Manuals (see notes)	MIL-PRF-7700	
a. Flight Manual		<input type="checkbox"/>
b. Performance Data Manual		<input type="checkbox"/>
5. List of Applicable Publications	MIL-PRF-8031	<input type="checkbox"/>
6. Structural Repair Manuals (for Aircraft)	MIL-PRF-9854	<input type="checkbox"/>
7. Munitions/Weapons Loading Procedures, Non- nuclear and Nuclear	MIL-PRF-9977	
a. Nuclear Weapons Basic Information and Loading Procedures		<input type="checkbox"/>
b. Nuclear Weapons Loading Procedures		<input type="checkbox"/>
c. Non-nuclear Munitions Basic		<input type="checkbox"/>
d. Non-nuclear Loading Procedures		<input type="checkbox"/>
e. Integrated Combat Turnaround Procedures		<input type="checkbox"/>
f. Non-nuclear Munitions Loading Standard Data Packages (SDPs)		<input type="checkbox"/>
g. Loading Procedures Checklists		<input type="checkbox"/>
h. Integrated Loading Procedures Checklists		<input type="checkbox"/>
i. Nuclear Weapons Loading Procedure Checklists		<input type="checkbox"/>
j. Integrated Combat Turnaround Procedures Checklists		<input type="checkbox"/>
k. NATO Stage B Cross-Servicing Checklists		<input type="checkbox"/>

TABLE 1
TMSS REQUIREMENTS FOR THE () Program
(System/Component)

Title or Type of Manuals	Specification	Required
8. Mobile Training Sets (MTS) and Part Task Trainer TOs	MIL-PRF-9994	
a. Single Manual		<input type="checkbox"/>
b. Single Manual w/IPB		<input type="checkbox"/>
c. General/Systems Trainer Manuals		<input type="checkbox"/>
d. General/Systems Trainer Manuals w/IPB		<input type="checkbox"/>
e. Part Task Trainer Manuals		<input type="checkbox"/>
9. Space Operations and Support Documentation TOs	ANSI/AIAA-R024-1993	
a. Operations Manual	(Replaces MIL-M-38311)	<input type="checkbox"/>
b. Operations Checklists		<input type="checkbox"/>
c. Technical Manuals and Related Checklists		<input type="checkbox"/>
10. Nuclear and Non-nuclear Weapon Delivery and Aircrew Procedures Manua and Checklists	MIL-PRF-38384	
a. Non-nuclear Weapon Delivery Manual (Strategic Bomber & Tactica Aircraft)		<input type="checkbox"/>
b. Nuclear Bomb Delivery Manual (Strategic Bomber Aircraft)		<input type="checkbox"/>
c. Aircrew Nuclear Weapon Delivery Manual (Strategic Bomber Aircraft)		<input type="checkbox"/>
d. Aircrew Nuclear Weapon Delivery Manual (Tactical Aircraft)		<input type="checkbox"/>
e. Non-nuclear Weapon Delivery Checklist (Strategic Bomber & Tactical Aircraft)		<input type="checkbox"/>
f. Nuclear Bomb Delivery Checklist (Strategic Bomber Aircraft)		<input type="checkbox"/>
g. Aircrew Nuclear Weapon Delivery Checklist (Tactical Aircraft)		<input type="checkbox"/>
h. Non-nuclear Weapon Delivery Source Data Packages		<input type="checkbox"/>
11. Air Refueling Procedures	MIL-PRF-38413	
a. Manual		<input type="checkbox"/>
b. Checklist		<input type="checkbox"/>
12. Work Unit Code Manual	MIL-PRF-38769	<input type="checkbox"/>
13. Calibration Procedures	MIL-PRF-38793	<input type="checkbox"/>
14. Time Compliance Technical Orders (TCTOs)	MIL-PRF-38804	<input type="checkbox"/>
15. Aircraft Battle Damage Assessment and Repair TOs	MIL-PRF-87158	<input type="checkbox"/>
16. Illustrated Parts Breakdown	MIL-PRF-38807	<input type="checkbox"/>
17. On-Equipment Organizational Maintenance Manual Set (see notes)	MIL-PRF-83495	
a. General Equipment (GE) Manual		<input type="checkbox"/>
b. General System (GS) Manuals		<input type="checkbox"/>
c. Combined GE & GS Manual		<input type="checkbox"/>
d. Job Guide (JG) Manuals		<input type="checkbox"/>

TABLE 1
TMSS REQUIREMENTS FOR THE (____) Program
(System/Component)

Title or Type of Manuals	Specification	Required
e. Fault Reporting (FR) Manual		<input type="checkbox"/>
f. Fault Isolation (FI) Manual		<input type="checkbox"/>
g. Wiring Data (WD) Manual		<input type="checkbox"/>
h. Schematic Diagram (SD) Manual		<input type="checkbox"/>
18. Operation and Maintenance Instructions in Work Package Format	MIL-PRF-87929	
a. Maintenance Manuals		
(1) Intermediate Maintenance		<input type="checkbox"/>
(2) Depot Maintenance		<input type="checkbox"/>
(3) Combined (I&D) Maintenance		<input type="checkbox"/>
(4) On Condition Maintenance		<input type="checkbox"/>
b. Operation & Maintenance Instruction Manuals		<input type="checkbox"/>
c. Special Manuals		
(1) Aircraft Engine Testing and Trending Procedures		<input type="checkbox"/>
(2) Aircraft Power Package Testing Procedures		<input type="checkbox"/>
(3) Static Firing of Missile Motors		<input type="checkbox"/>
(4) System Peculiar Corrosion Control		<input type="checkbox"/>
(5) Nondestructive Inspection (NDI)		<input type="checkbox"/>
(6) Aircraft Structural Integrity Program (ASIP)		<input type="checkbox"/>
(7) ATE Operator Test Procedures		<input type="checkbox"/>
(8) Special Requirements for Storage and Maintenance Procedures; AUR Munitions/Launchers and Associated Support Equipment, Conventional Components and CMBR Agents		<input type="checkbox"/>
(9) Parachute Packing Procedures		<input type="checkbox"/>
(10) Operators Instructions (Hand-Held Flight Computers)		<input type="checkbox"/>
(11) Installation-Engineering Facility (Ground C-E Equipment)		<input type="checkbox"/>
d. Checklists (IAW MIL-PRF-5096)		<input type="checkbox"/>
e. With Illustrated Parts Breakdown (see notes)		<input type="checkbox"/>
19. Commercial Manuals (Evaluate according to MIL-HDBK-1221)		<input type="checkbox"/>
20. Aircraft Cross-servicing Guide	MIL-DTL-22202	<input type="checkbox"/>
21. Electronic Technical Manuals (Contact specification preparing activity for guidance.)	MIL-PRF-87268 MIL-PRF-87269	<input type="checkbox"/>

TABLE 2
ADDITIONAL TM TYPE SELECTIONS

NOTES:

- Check all applicable boxes.
- For commercial manual supplemental data only, under the specification heading, enter "Same style and format," "MIL-PRF-38807" (for IPB data), or "MIL-STD-38784."
- For existing MIL-SPEC manuals not being updated to latest specification requirements, enter "Same style and format" under the specification heading.

TO Number, Title, or Type of Manual	Specification	Com- mercial Manual	New	Supple- ment	Supple- mental TM	Source Data
1. <u>12P3-2ALR69-53</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. <u>12P3-2ALR69-63</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. <u>12P3-2ALR69-104</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. <u>12P3-2ALR69-114</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. <u>TCTO</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTES

1. Basic shall be IAW MIL-STD-38784 (general style and format).
2. Necessary guidance and mutual interpretation of major individual TO projects will be provided in a **Technical Order Guidance Conference** requested by the contractor.
3. Requirements for new TOs, revisions, and non-routine update actions, shall be submitted for TOMA approval via CFAE/CFE Notices (DI-TMSS-80067).
4. Requirements of MIL-HDBK-38790 (printing) apply to all TO update actions.
5. Use the version of all listed military specifications and standards current at the time of 35% review level preparation.

PART B - TM DELIVERY REQUIREMENTS**FOR** _____*(System/Item)***TM DATA TYPE DELIVERED** AN/ALR-69(PLAID) .*(TMSS/Change/Supplement/etc.)**(Replicate form for each TM type required.)***Delivery Format Requirements Codes****Paper** (draft or manuscript only. Cannot be used for final delivery)**Mixed paper and digital** (G/I)**Digital delivery only:****G.** - Standard **Generalized Mark-up Language** (SGML).**I.** - **Indexed Portable Document Format** (IPDF) File.**EXAMPLE:** M(G) / 2 [Paper and SGML / 2 copies]**NOTES:**

- Delivery format requirements codes indicate the media/file format to be delivered for each program event.
- TCTO requirements are specified in the contract vehicle approving the TCTO.
- When on-line access (e.g., CITIS) is a contractual requirement, copy quantity will normally be Ø (zero).

DELIVERY SCHEDULE				
Event ⇨ Number of days data required prior to event ⇨ Enter Office Symbol and Address ↓ ↓	Technical Review(s) (30 Days) Enter delivery requirements code/copy quantities required ↓	Verification (30 Days) ↓	Prepublication Review (30 Days) ↓	Final TO Distribution (60 Days) ↓
WR-ALC/LNCA 265 PERRY STREET ROBINS AFB GA 31098-1607	5/P	5/P	5/P	M(I)/1
WR-ALC/LNRC 265 PERRY STREET ROBINS AFB GA 31098-1607	1 / P	1 / P	1 / P	/
Total Copies Required:	6	6	6	1

1. Advance PTO copies shall be forwarded to TOMA activities shown above per Sec 1, para 12, TM-86-01/T. Sufficient PTOs also shall be provided to support In-Process Reviews, Validation, Verification and Prepublication Review as required on-site. Commercial manuals shall be submitted once for review, in duplicate, as soon as identified.
2. One **paper copy and 2 digital files** are required (Sec 2, para 3). Digital files shall be delivered via compact disc or as agreed upon; one in an editable, page layout application; either Adobe Pagemaker 6.5 or higher; or Adobe FrameMaker 5.5 or higher, with all illustrations, schematics, and wiring diagrams prepared in either AutoCad Lt 2000 or higher; Adobe Illustrator 7.0 or higher; or Canvas 5.0 or higher. The second digital file shall be a Portable Document File (PDF). TOMA letter may approve alternate common electronic delivery media.
3. One copy each shall be forwarded to using command addressees or other reviewer(s) when specified by the TOMA in minutes of Guidance Conference, IPR, or by TOMA letter.

SECTION 3. SPECIFICATION/STANDARD INTERFACE RECORDS (SIRs)

NOTES:

- Most specification "Acquisition Requirements" list the same two items for paragraphs 6.2a and 6.2b. For this contract enter:
 - 6.2a. The title, number and date of each specification will be listed in the heading of the applicable SIR.
 - 6.2b. The issue of the DODISS used in this contract is (*enter date*).
- Tailoring out digital requirements may result in parsing failure of the delivered files. All such tailoring must be coordinated with the specification Preparing Activity (PA).
- All TM specifications applicable to this contract require an appropriately tailored SIR attached to this section. MIL-STD-38784 must be included in all contracts/proposals for AF TMSS-developed TOs.
- Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from <http://www.dodssp.daps.mil>, or the Standardization Documents Order Desk, 700 Robbins Ave, Bldg 4D, Philadelphia, PA 19111-5094.

STANDARDIZATION INTERFACE RECORD FOR MIL-STD-1840B, Automated Interchange of Technical Information

3 November 1992

NOTE: Program-specific tailoring of para 6.3 must be added to this SIR.

4.2 The transfer unit shall be encoded in an appropriate format for the type of transfer unit specified below.

4.2.1 Page image transfer units will only be used for raster-scanned (non-changeable) documents used to update relatively stable legacy (existing) data.

4.2.1c Special word files shall not be used; if changes to AF DTDs or FOSIs are required and authorized, the contractor shall submit a revised DTD or FOSI.

4.2.2 Page Description Language (PDL) transfer units will only be used to update volatile (changeable) legacy data using a commercial word processing format. **NOTE:** The preferred AF PDL is an Adobe™ Portable Document Format (PDF) file indexed in accordance with the AF Digital Data Strategy (http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm).

4.2.3 Standard AF DTDs (appended to the prescribed TM specifications) shall be used, when possible. The PUBLIC identifier shall be identified in the SGML document transfer unit. If no DTD is appended to the relevant MILSPEC, contact MSG/ILMP, through the Procuring/Administrative Contracting Officer (PCO/ACO) and the TO Management Agency, to obtain permission to develop a program-specific DTD.

4.2.3b Document type declaration files are not required if the file is in standard AF DTD format and the document type is obvious upon file inspection.

4.2.3d SGML text entity files developed as a result of AF DTD modification shall be included. PUBLIC SGML text entity files shall NOT be used.

4.2.3e Each illustration in the file shall be delivered in one of the following formats: IGES, Raster, or CGM. All formats may be used within any one document, depending upon the various types of illustrations used.

Note: This is not intended to prevent delivery of an "intelligent raster" illustration, i.e., one with an IGES overlay to facilitate changes to the raster image.

4.2.3f Standard AF FOSIs (available electronically as GFI from the AF TMSS OPR) shall be used, when possible, for paper output products. The PUBLIC identifier shall be identified in the SGML document transfer unit. If no FOSI is available for the relevant MILSPEC, or for digitally-displayed data, contact MSG/ILMP, through PCO/ACO and the TO Manager, to obtain permission to develop a program-specific FOSI.

4.2.3g Special word files shall not be used; if changes to AF DTDs or FOSIs are required and authorized, the contractor shall submit a revised DTD or FOSI.

4.2.3h Contract defined data files shall be included in the transfer unit if quantities and capacities deviate from MIL-PRF-28001 (see paragraph 4.4.9).

4.2.4 Product data transfer units will only be used for engineering data files.

4.2.5 Delete.

4.4.1 Page image data files shall be in accordance with MIL-PRF-28002 for raster image files (see SIR paragraph 4.2.1 and the NOTE for paragraph 4.2.3e).

4.4.2 Special word files shall not be used.

4.4.5 Replace the 1st sentence with: Text source data files shall be SGML encoded ASCII text files, tagged in accordance with the standard AF DTDs (see paragraph 4.2.3).

4.4.6 Delete.

4.4.7 When there are multiple uses for the same illustration within a single document, submit only one illustration data file.

4.4.7.1 IGES Class I, Technical Illustration Subset, will normally be used in preference to Class II or Class III (see SIR for MIL-PRF-28000).

4.4.7.2 The contractor shall obtain government approval before including raster illustration data files, except in page image transfer units provided in raster format only.

4.4.8 Change to read: "FOSI data files shall be in accordance with standard AF FOSIs and shall define the style and display format of the document according to the applicable specification (see paragraph 4.2.3f)."

4.4.9 Replace with: "Contract defined data files. This file shall be used to provide the appropriate SGML declaration [Federal Information Processing Standard (FIPS) 152]. The file shall be submitted in ASCII."

4.4.10 through 4.4.12 Delete.

4.4.13 Renumber as 4.4.7.4. Replace requirements with: "Use of half-tone or color illustrations shall be as specified in the applicable TM specification."

5.3.2g Replace with: "DTD Revisions. A DTD revision shall be included any time the standard AF DTD must be modified. Prior MSG/ILMP approval for the modification is required."

5.4.2 The type of alternative medium shall be specified by the government.

5.5.3 Packaging instructions for alternative media shall be provided by the government.

6.3 Tailoring Guidance. *The following list of paragraphs may require additional tailoring: 4.2, 4.2.4b (if used), 4.4.3 (if used), 4.4.4, 4.4.11 (if used), 5.3.2 (if types not listed are required), 5.4 (transfer package layout on medium), 5.4.2 (specify media if not 9-track tape), and 5.5.3 (if non-listed computer media are specified). The TO acquisition manager must coordinate tailoring with the sustainment TO manager and the contractor to ensure requirements are realistic and supportable. DELETE this italicized paragraph during tailoring.*

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28000A,

10 February 1992

Digital Representation for Communication of Product Data: IGES Application Subsets and IGES Application Protocols

NOTES:

- Program-specific tailoring of para 6.2 must be added to this SIR.
- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).

6.2c. The type of product data procured will be Class I - Technical Illustration Subset. If Class II or Class III products are being procured for other program purposes (such as engineering drawings), and these products are suitable for TO application, they shall be used instead of duplicating data merely to obtain the Class I product.

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28001B,

26 June 1993

Markup Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text

NOTE: Used for Air Force TOs as a reference only. Contact MSG/ILMP if new DTDs are required.

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28002B,
Raster Graphics Representation in Binary Format,
Requirements for

14 December 1992

NOTES:

- Program-specific tailoring of (para 6.2) must be added to this SIR.
- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).
- Paragraph 6.2.1b is not answered in the TMCR.

1.2 (Info only) Type II, Tiled Raster Graphics (the optional choice) are compressed and require less memory space than Type I (Untiled).

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28003A,
 Amendment 1,

15 November 1991

10 August 1992

Digital Representation for Communication of Illustration Data:
CGM Application Profile

NOTES:

- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).
- Paragraph 6.2b is not answered by the TMCR.

6.2b. Unless otherwise required by the content specification, only the Type 0 (monochrome) metafile shall be used.

6.2c. (*Tailor*)

STANDARDIZATION INTERFACE RECORD FOR MIL-DTL-22202D,
Manual, Technical, Aircraft Cross-Servicing Guide,
Preparation of

31 March 1999

The requirements of 6.2 are met in this SIR (see below).

1.1 In addition to paper delivery, when this specification is used to develop digital delivery files (document type definitions – DTDs) contact the PA for additional instructions.

2.3 Ensure the listing for STANAG/ASCC Air Standard Documents is current. List applicable STANAG/ASCC Air Standards below.
 (List STANAG/ASCC Air Standard Documents here.)

2.2.1 (Added) “Other government documents, drawings, and publications.

DEPARTMENT OF DEFENSE

DOD 5200.1-R

DoD Information Security Program Regulation

DOD 5220.22-M

National Industrial Security Program Operating Manual

4. Replace with: “**VERIFICATION.**

“All cross-servicing guides shall meet the requirements of sections 3 and 5 of this specification, as required by the acquiring activity. The requirements set forth in this specification shall become a part of the contractor’s overall inspection system or quality program. The absence of any requirements in this specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract. Use of sampling inspections shall be at the discretion of the contractor, and in accordance with commercially acceptable quality assurance procedures. However, use of sampling in QA procedures does not authorize submission of known defective material, either indicated or actual, nor does it commit the government to accept defective material.”

5. Replace with: "PACKAGING.

"5.1 Packaging Requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or order. When the actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to determine packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department's System Command. Packaging data retrieval is available from the Military Department's or Defense Agency's automated packaging files, CD-ROM products, or the responsible packaging activity.

"5.1.1 Encoded Computer Products. Packaging of encoded computer products for delivery shall be in accordance with the requirements of MIL-STD-1840.

"5.1.2 Classified Material. Classified material shall be packaged and identified in accordance with DOD 5200.1-R, DOD 5220.22-M, and the implementing Service regulations."

- 6.2a Title, number, and date of the specification are listed above.
- 6.2b Issue of DODISS: *(fill in issue of DODISS applicable to this contract)*
- 6.2c Packaging requirements (see above).
- 6.2d Verification requirements (see above).

STANDARDIZATION INTERFACE RECORD FOR MIL-STD-38784,

2 July 1995

**Standard Practice for Manuals, Technical:
General Style and Format Requirements**

4.5.1.13 Destruction Notice. Change the existing sentence to read: "...or X shall be marked with Handling and Destruction Notice "a" (below) on the cover/title..." Add a new second sentence as follows: "Unclassified TOs authorized for Public Release (Distribution Statement "A") shall be marked with disposition notice "b" (below) on the title or T-2 page."

4.5.1.13.a. Designate existing paragraph as "a. HANDLING AND DESTRUCTION NOTICE..."
Add: "See TO 00-5-2 for specific destruction procedures."

4.5.1.13.b (Added) b. DISPOSITION NOTICE - Refer to TO 00-5-2 for disposition instructions.

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-38804,**Amendment 1,****Time Compliance Technical Orders – Preparation**

1 March 1996

20 June 1997

3.5.5.3a (Added) Add new subpara "a" as follows:

a. Routine Safety Inspection Organizational/Intermediate Level TCTOs. "Not later than (#) days after receipt of this TCTO. Affected system/ equipment shall be removed from service if this TCTO is not accomplished within the specified number of days." The specified number of days for accomplishment shall be controlled by the degree of safety involved rather than the designated level of maintenance. If the compliance period cannot be met before the TCTO rescission date, the performing organization will request an extended compliance period according to TO 00-5-15.

3.5.5.3 Renumber existing paragraphs "a" thru "d" and retitle as follows:

- b. Routine Action, Organizational/Intermediate Level, Safety TCTO.
- c. Routine Action, Organizational/Intermediate Level TCTO.
- d. Routine Action, Organizational/Intermediate Level, Based Upon Maintenance Practice.
- e. Routine Action, Depot Level.